

NE
part of U.S. Application Serial No. 07/427,765, filed October 27, 1989, now abandoned, all of which are incorporated by reference in their entirety herein.

In the Claims:

✓
Please cancel claim 66 without prejudice or disclaimer.

Please add new claims 67-76 as follows:

- BS
67. (New) The plant cell of claim 53 wherein said immunoglobulin light chain variable region is a full length variable region.
68. (New) The plant cell of claim 53 wherein said nucleotide sequence also encodes at least a portion of the constant region of an immunoglobulin light chain.
69. (New) The plant cell of claim 53 wherein said nucleotide sequence also encodes at least a portion of the variable region of an immunoglobulin heavy chain.
- sub 68
70. (New) The plant cell of claim 69 wherein said portion of said heavy chain is from a heavy chain selected from the group consisting of IgG, IgM, IgA, IgD and IgE.
71. (New) The plant cell of claim 54 wherein said single-chain antigen-binding protein comprises at least a portion of the variable region of a light chain and at least a portion of the variable region of a heavy chain.
72. (New) The plant cell of claim 71 wherein said portion of said heavy chain is from a heavy chain selected from the group consisting of IgG, IgM, IgA, IgD and IgE.
73. (New) The plant cell of claim 72 wherein said single polypeptide further comprises a linker sequence encoded by nucleotide sequence located between the nucleotide sequence encoding said immunoglobulin light and heavy chain.
74. (New) The plant cell of claim 71 wherein said immunoglobulin heavy chain variable region is a full length variable region.
75. (New) The plant cell of claim 71 wherein said nucleotide sequence also encodes at least a portion of the constant region of an immunoglobulin heavy chain.
76. (New) A plant comprising the plant cell of claim 53.

Please amend claims 53, 55, 56, 58-60, 62-65 as shown below. For the examiner's convenience, all prior pending claims are shown below whether or not amended herein. A marked up version of the amended claims is attached under the heading "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Sub
C1
B1
53. (Amended) A plant cell containing:

a) nucleotide sequence[s] encoding an antigen-specific immunoglobulin product comprising at least a portion of the variable region of an immunoglobulin light chain and a leader sequence forming a secretion signal for said light chain, and;

(b) the antigen-specific immunoglobulin product encoded by said nucleotide sequences wherein said leader sequence is cleaved from said immunoglobulin light chain following proteolytic processing.

54. The plant cell of claim 53 wherein the immunoglobulin product is a single-chain antigen-binding protein.

Sub
C3
B2
55. (Amended) The plant cell of claim 53 wherein the immunoglobulin product comprises one heavy chain and one light chain.

56. (Amended) The plant cell of claim 53 wherein the immunoglobulin product comprises a full-length immunoglobulin light chain.

57. The plant cell of claim 53 wherein the immunoglobulin product is an abzyme.

Sub
C5
B3
58. (Amended) The plant cell of claim 53 wherein the immunoglobulin product comprises a Fab.

59. (Amended) The plant cell of claim 53 wherein the immunoglobulin product comprises a Fab'.

60. (Amended) The plant cell of claim 53 wherein the immunoglobulin product comprises a F(ab')₂.

61. The plant cell of claim 53 wherein the immunoglobulin product comprises an Fv.

B4
Sub
C7
62. (Amended) The plant cell of claim 53 wherein the immunoglobulin product comprises a full-sized antibody.